CALIFORNIA COASTAL COMMISSION

CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
(831) 427-4863

W6a

Filed:	12/26/04
180-day:	6/24/05
Staff:	CKC
Staff report:	5/26/04
Hearing date:	6/09/04

COASTAL DEVELOPMENT PERMIT APPLICATION

Application number.....**3-00-102 Moss Landing Marine Lab Ocean Pier Replacement (Sandholdt Pier)**

Applicant.....CSU-San Jose State University, Moss Landing Marine Laboratories; Kenneth Coale, Director

Project location .....7722 Sandholdt Road, Moss Landing Monterey County (APN 133-232-006) (See Exhibits A, B and C)

Project description.....Demolition and replacement of damaged ocean pier and onshore concrete abutment (See Exhibits B, C and D)

File documents.....Certified Monterey County Local Coastal Program, including North County Land Use Plan and Regulations for Development in North County; CDP Application Materials; Emergency permit 3-02-003-G for demolition and removal of Sandholdt Pier due to public safety concerns.

Staff recommendation ...**Approve with conditions**

Summary:

The San Jose State University and Moss Landing Marine Laboratories have requested to demolish the remaining 100 feet of the wooden Sandholdt Pier and construct a new 500-foot long, 12,832 square foot concrete pier. The new pier will be built in approximately the same location as the remnants of the former pier, which had been damaged over time in part by the Loma Prieta Earthquake, subsequent storm events (1995, El Nino and 1999 high wave events), and deferred repair and maintenance. Demolition of the last 100 feet of the pier already occurred in January of 2002 (under Emergency Permit CDP 3-02-003-G), after partial collapse of a portion of the decking caused concerns regarding the potential for total collapse and threats to public safety. The current permit application therefore serves as both an after the fact authorization for demolition of the remaining 100 feet of the pier, and for construction of a new pier.

Prior to its deterioration, Sandholdt Pier had historically been used for commercial shipping and whaling, and also provided historic recreational use for fishing and served as a coastal destination point for passengers of the narrow gauge Pajaro Valley Consolidated Railway. After acquisition of the pier and the adjacent on-shore parcel by the San Jose State University Foundation in 1988, the pier served as

a platform for marine research conducted as part of the educational mission of the Moss Landing Marine Labs.

The project site is located west of Sandholdt Road at the point where the Sandholdt Road Bridge terminates and the road curves north. The landward portion of the pier, and the pier abutment will be located on the parcel owned by San Jose State University Foundation, and used by Moss Landing Marine Labs (APN 133-232-006). The submerged tidelands under the pier are in the jurisdiction of the Moss Landing Harbor District, which has approved a construction permit for the project and entered into a 50-year lease agreement with CSU/MLML for use of the submerged property.

The primary Coastal Act issue raised by the project is the protection and the provision of maximum public access and recreation opportunities. In addition, the Monterey County certified LCP, which provides guidance to the Commission, also requires the protection and enhancement of coastal access and recreation opportunities, and specifically recommends restoring the former Sandholdt Pier as a fishing pier. In addition, the LCP encourages the use of existing piers for access and recreation where compatible with commercial fishing. Although the new pier is a priority use under the Coastal Act, and will serve an important coastal research function, it also will be constructed on public tidelands, and will also likely interfere with lateral beach access at higher tides.

The public access plan submitted by the applicant provides only limited physical public access opportunities on the pier, in the form of pre-arranged escorted tours and occasional open house events, due to MLML concerns about protecting equipment and research activities from public interference. The facility would be otherwise closed to the public. Although MLML has stated that lateral beach access will be protected by a higher elevation of the new pier, access at the base of pier will be difficult at high tides. No specific on-site access mitigation for the use of public lands is proposed beyond the limited tours of the facility. As detailed in the findings of this report, while the MLML has legitimate and important concerns for the protection of the primary research function of the proposed pier, it appears that more extensive public access is feasible, and reasonable to provide at the new pier facility, without undue interference with the proposed research use of the pier. This could take the form of a public deck area at the base of the pier, ideally out over the surf zone, where public education and interpretation of the work of MLML could be presented. Lateral access should also be provided up and over the pier, both for access to the public interpretive area, and for through-lateral beach access at high tides. In addition, in lieu of public access out onto the pier, vertical access across the San Jose State Foundation property from Sandholdt Road to the beach area and base of the pier is reasonable and appropriate mitigation. There is currently a gap in vertical access to the beach at this location, with the nearest accessways approximately 500 feet to the south of the pier location, and approximately 1,000 feet to the north.

The Coastal Commission originally scheduled this permit for public hearing in February 2004. However, the applicants requested the hearing be postponed in order to work with Commission staff on developing a more agreeable public access component. Staff met with the applicants several times to discuss various alternatives for providing some kind of physical access on the pier that would not interfere with potential research activities that might occur on the pier. However, the applicants have

since indicated that they believe that unrestricted access is not appropriate on the pier, that it would constitute a danger to the public, would reduce the security of the facility and compromise instrumentation and research and educational programs that make use of the pier, that it would be cost-prohibitive to provide regular, year round escorted access, and that ample public access is already provided. The applicants have proposed that the "maximum compatible pubic access" they would be willing to provide on the pier, consistent with research, safety and habitat protection needs, would include adding organized public tours of the pier to the existing marine lab facilities tour program currently carried out by the Friends of Moss Landing Marine Labs, "virtual access" via a website, increasing the height of the pier to allow better lateral access along the beach underneath the pier, locating Harbor District dredge pipelines on the pier to further reduce impediments to lateral beach access, and providing interpretive signage regarding historical and educational activities associated with the pier as well as signage for inquiries regarding pier tours. While the applicants have indicated they would be amendable to locating such signage at the base of the pier, they have reiterated that they are not willing to provide any additional physical public access on the pier itself.

Commission staff continues to believe that alternative pier design and access management measures could be used to safely accommodate some form of physical access on the pier for the general public that would avoid conflicts with research and educational use of the pier, and to improve access to and across the site. Therefore, staff is recommending that the permit be conditioned to incorporate specific public access provisions into the project design. Recommended conditions of approval require the applicant to modify the project plans to include an expanded portion of pier that can serve as a public viewing deck, outside of research activities and upon which interpretive and educational displays and signage may be placed, to provide vertical access along the southern property boundary and to provide stairs or ramps on the north and south side of the pier to allow lateral access across the site at all times, especially when high water prevents safe lateral access beneath the pier. Other recommended conditions of approval ensure protection of water quality, marine resources and environmentally sensitive dune habitat areas adjacent to the project site during construction.

Staff Report Contents

Exhibit K	Photos of Pier Remains Prior to Demolition
Exhibit L	Photos of Pier Demolition and Clean-up
Exhibit M	Pier Demolition Monitoring Reports
Exhibit N	Applicant's Proposed Public Access Plan (received January 13, 2004)
Exhibit O	Updated Public Access Plan (submitted February 17, 2004)
Exhibit P	Applicant's submittal regarding Coastal Development Permit requirement, pier extents and public access constraints (submitted April 21, 2004)
Exhibit Q	FEMA Damage Survey Reports for Sandholdt Pier
Exhibit R	Additional Photos Submitted by Applicant
Exhibit S	Historical Photos of Sandholdt Pier
Exhibit T	Correspondence Regarding Historic Public Access on Pier
Exhibit U	Correspondence Received in Support of Project.

I. Staff Recommendation on CDP Application

The staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development subject to the standard and special conditions below.

Motion. I move that the Commission approve Coastal Development Permit No. 3-00-102 pursuant to the staff recommendation.

Staff Recommendation of Approval. Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution to Approve the Coastal Development Permit. The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Conditions of Approval

A.Standard Conditions

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

B. Special Conditions

1. **Revised Final Plans.** Permittee shall submit two copies of final revised construction plans to the Executive Director for review and approval, PRIOR TO ISSUANCE OF PERMIT. Any modifications following Executive Director review and approval must also be submitted to the Executive Director for review and determination of materiality prior to implementation. The final construction plans, including structural plans and elevations, shall be in substantial conformance to the preliminary plans submitted with this application (prepared by Mesiti Miller, dated 2000), and shall also include an expanded platform (of at least 1,000 square feet) and hand railing along the landward end of, and level with, the pier, that will serve as a public viewing deck, upon which shall be located interpretive, educational and directional signage, and stairs on both the north and south sides of the pier to allow lateral access up and over the landward abutment of the pier. The final plans shall include all project elements including pilings, pier abutment, railings and gates, signage, lighting, and drainage features used to prevent polluted runoff from entering Monterey Bay, prepared in accordance with the following requirements:

    a. **Lighting Plans.** All exterior lighting shall be designed and located so that only the intended area is illuminated and off-site glare is prevented. Proposed lighting shall be

limited to the minimum necessary for public safety. The lighting plan shall provide for minimization of lighting along the perimeter of the pier and use of lighting fixtures that do not create offsite illumination into the adjacent ocean waters, other than that required to provide illumination for boats/ships berthing alongside the pier, consistent with safety. The lighting plan shall indicate the location, type, and wattage of all light fixtures and include catalog sheets for each fixture.

b. Structural Plans. Project structures shall be designed and constructed in accordance with the recommendations of the geotechnical engineer, as identified in geotechnical reports prepared by Rutherford & Chekene (*Final Report, Geotechnical Engineering Study, Seawater Shore System, Moss Landing Marine Laboratories, CSU, Moss Landing, California,* October 1997, and *Report on Geophysical Exploration for a replacement pier at Moss Landing marine Labs, Moss Landing California*, December 2003), and mitigation measures identified in the Initial Study (dated October 2001, and approved by the Moss Landing Marine Labs December 18, 2001). The recommended design specifications shall be incorporated into the construction plans for the project. The project geotechnical engineer shall review all construction plans to ensure that geotechnical recommendations have been adequately incorporated. The geotechnical engineer shall conduct periodic inspections during construction to ensure effective implementation of geotechnical recommendations.

c. Long-Term Pollution Prevention Plan. Permittee shall develop a long-term pollution prevention program designed to prevent future adverse water quality impacts from ongoing activities associated with pier use. The plan shall include provisions to provide water quality protection training to all personnel involved in construction, maintenance and research use of the pier. The plan shall indicate that stormwater runoff from impervious surfaces shall be dispersed at multiple points, over the least steep available slopes, with erosion control at outlets, and include any additional directives aimed to prevent any potential future adverse water quality impacts from ongoing activities associated with pier use. Permittee will be responsible for implementing the long-term pollution prevention plan following approval of the plan by the Executive Director.

d. Signage. Identify the location, design and content of any signs and interpretive displays used for illustrative, educational or directional purposes. Signs should be kept relatively small in size and designed in keeping with the maritime character of the area, and shall be permanently maintained. Public access signs of at least 1 foot by 2 feet shall include the coastal access logo, and be conspicuously posted at 1) the intersection of the accessway and Sandholdt Road, and 2) the accessway and the beach.

2. Construction Operations Plan. PRIOR TO COMMENCEMENT OF CONSTRUCTION, permittee shall submit for Executive Director review and approval, a Construction Operations Plan that specifies measures to be implemented during construction to avoid impacts to adjacent habitats, recreation areas, and water quality. Following review and approval of the plan by the Executive

Director, permittee shall be responsible for implementing all elements of the approved plan. Such plan shall include the following:

a. Construction Area. Plans shall identify the location of the entire construction area, including equipment storage and staging locations and construction access routes. The construction area shall be limited to the minimum area needed to construct the project, and shall be delineated with temporary construction fencing. Plans shall minimize the use of sandy beach area and show that no construction materials, heavy equipment, construction activities or personnel will be allowed in environmentally sensitive dune areas. Prior to any construction activity, the permittee shall install temporary construction fencing along the limits of the construction area to prevent any construction activity from encroaching into adjacent dune habitat. The fencing shall be at least 6 feet in height, shall be securely staked and shall be maintained in good condition during the entire construction phase of the project.

b. Erosion Control Plan. Identify all relevant best management practices (BMPs) to be implemented during construction to control erosion associated with construction activities. Erosion control plan shall also include provisions for stockpiling and covering of stored materials, temporary stormwater detention facilities, and shall prohibit grading and earthmoving during the rainy season. Erosion control plans shall contain provisions for specifically identifying and protecting all nearby dune and aquatic habitat areas (with sandbag barriers, filter fabric fences, straw bale filters, etc.) to prevent project-related runoff and sediment from entering the waters of the Pacific Ocean.

The Erosion Control Plan should make it clear that: (a) dry cleanup methods are preferred whenever possible and that if water cleanup is necessary, all runoff will be collected to settle out sediments prior to discharge from the site; (b) off-site equipment wash areas are preferred whenever possible; if equipment must be washed on-site, the use of soaps, solvents, degreasers, or steam cleaning equipment should not be allowed; in any event, this wash water should not be allowed to enter storm drains or any natural drainage; (c) concrete rinsates, if any, should be collected and they should not be allowed into storm drains or natural drainage areas; (d) good construction housekeeping should be required (e.g., clean up all leaks, drips, and other spills immediately; refuel vehicles and heavy equipment off-site and/or in one designated location; keep materials covered and out of the rain (including covering exposed piles of materials used in the treatment process and wastes); dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather); and finally (e) all erosion and sediment controls should be in place prior to the commencement of grading and/or construction as well as at the end of each day.

c. Hazardous Material Storage. Store petroleum products and other hazardous materials a distance of at least 20 meters (65 feet) from the shoreline and construct a berm around the

storage site sufficiently high to retain 1.5 times the amount of stored liquids. The fueling of all vehicles and construction equipment shall occur off site.

d. Spill Response Plan. The Construction Operations Plan shall include a spill response plan or evidence that the applicant has contracted with a qualified local spill containment/cleanup contractor capable of responding to accidental releases of petroleum or other hazardous material.

e. Material Containment. Measures shall be implemented to prevent foreign materials (e.g. construction scraps, wood preservatives, other chemicals, etc.) from entering the sea or other state waters. A floating containment boom, netting, or functional equivalent shall be placed around all active portions of a construction site where wood scraps or other floatable debris could enter the water. For any work on or beneath fixed decking, heavy-duty mesh containment netting shall be maintained below all work areas where construction discards or other materials could fall into the water. The floating boom and net shall be cleared daily or as often as necessary to prevent accumulation of debris. Contractors shall insure that work crews are briefed on the importance of observing the appropriate precautions, implementing these measures, and reporting any accidental spills. Construction contracts shall contain penalty provisions, sufficient to provide for the retrieval and/or clean up of improperly contained foreign materials. No construction activities or material storage shall be allowed on the Salinas River State Beach Property south of the project site.

f. Procedures for Concrete Work. If piling installation requires the pouring of concrete in, adjacent to, or over the water, one of the following methods shall be employed to prevent uncured concrete from entering harbor or other state waters:

1. Complete dewatering of the pour site, within a caisson or other barrier; the site is to remain dewatered until the concrete is sufficiently cured to prevent any significant increase in the pH of adjacent waters; or

2. The tremie method, which involves placement of the form in water, inserting a plastic pipe down to the bottom of the form and pumping concrete into the form so that the water is displaced towards the top of the form. If this method is selected, the displaced waters shall be pumped off and collected in a holding tank. The collected waters shall then be tested for pH, in accordance with Fish & Game regulations. If the pH is greater than 8.5, the water will be neutralized with sulfuric acid until the pH is between 8.5 and 6.5. This pH-balanced water can then be returned to the sea. However, any solids that settle out during the pH balancing process shall not be discharged to the marine environment.

In each case involving such concrete pours in or near state waters, a separate washout area shall be provided for the concrete trucks and/or tools. The washout area shall be designed and located so that there will be no chance of concrete slurry or contaminated

water runoff to the harbor other state waters, nor into storm drains or gutters that empty into such bodies of water.

g. Environmental and Condition Compliance Monitor. Permittee shall employ an environmental monitor with proven biological monitoring experience who is approved by the Executive Director to ensure compliance with all mitigation requirements and that resource protection measures are carried out during pier demolition and reconstruction. The monitor shall have the authority to halt any action that might result in injury or mortality to southern sea otters, harbor seals, brown pelicans, or other sensitive wildlife or habitat, and shall inform construction workers that construction vehicles and work activities shall avoid dune habitat areas. Monitor shall also have the authority to utilize methods to delay in-water activities if marine mammals or sensitive bird species are within the immediate vicinity of construction. The environmental monitor shall consult with CDFG and USFWS for methods to discourage marine mammals and birds from construction areas (such measures might include use of his/her physical presence, herding boards, hand clapping, or water sprayed from garden hoses to encourage sea otters and harbor seals to leave any area where they may be at risk from project activities). However, the use of "seal bombs" is prohibited per Moss Landing Harbor District Ordinance Code § 14.110(6).

h. Minimize interference with Public Access. Permittee shall also ensure that construction and demolition operations are conducted so as to minimize, to the greatest extent possible, any interference with public access to the beach within and adjacent to the project site. Since parking is available onsite, construction workers shall not use the limited public parking spaces located south of the Seawater Lab facility entrance.

i. Site Restoration. Construction Operation Plans shall also show that within 15 days of conclusion of construction activities, all construction materials shall be removed and the site topography restored to match existing grade adjacent to the site.

3. Reporting requirements. Within 60 days of completion, permittee shall submit a letter report to the Executive Director, that includes:

a. Engineers certification that the pier has been constructed in substantial conformance with the preliminary design drawings prepared by Mesiti Miller Engineering, 2000, and approved by this permit.

b. Photo-documentation of resource protection measures implemented as part of the construction process and completed facilities.

c. Environmental monitoring report confirming that all resource protection measures were implemented in conformance with conditions of this permit, and describing measures taken during any interactions with sensitive wildlife and habitat.

4. Snowy Plovers. NO MORE THAN TWO WEEKS PRIOR TO COMMENCEMENT OF

CONSTRUCTION ACTIVITIES, a survey shall be conducted on and within 500 feet of the project site, including under the pier, by a qualified ornithologist according to the survey protocol of the USFWS, to determine whether nesting bird species and/or sensitive bird species, including bank swallows and western snowy plovers, are present at the site. If nesting and/or sensitive bird species are not observed, no further action is required. If nesting and/or sensitive bird species are observed, a qualified biologist shall prepare a mitigation plan in consultation with USFWS, for Executive Director Review and approval prior to commencement of construction. The mitigation plan shall at a minimum contain the following elements:

a. Description of the habitat characteristics and requirements of the species;

b. Description of breeding and nesting behavior of the species;

c. Description of the pier replacement project and which project activities are most likely to affect plovers or other nesting species which inhabit areas proximate to the project site;

d. Identification of mitigation measures that will be implemented to avoid project impacts to the species (which may include postponement of construction until outside the breeding season); and

e. Discussion of consultation activities that have occurred with the USFWS associated with protection of snowy plover and other sensitive bird species.

Permittee shall be responsible for implementing the snowy plover mitigation plan following approval by the Executive Director.

5. **Public Access Plan for Pier.** PRIOR TO ISSUANCE OF COASTAL DEVELOPMENT PERMIT, the applicant shall submit, to the Executive Director for review and approval, an amended public access plan that incorporates, at a minimum, the following:

a. Designation of a portion of the landward end of the pier for public use, or modification of the pier design to provide an observation deck of at least 1,000 square feet, structurally integrated in to the pier, with necessary piling supports and handrails, and outside of the area needed for ongoing research activities.

b. Signs and interpretive displays to illustrate and describe the Pier's historical role in the cultural and commercial development of the area, as well as educate the public about the research activities being performed and any associated restrictions on access and or activities necessary to prevent interference with the research.

c. Concrete stairs or ramps on both the north and south sides of the pier abutment to allow lateral access up and over the abutment at all times, especially when high water prevents safe lateral access beneath the pier.

d. Signs stating that the public viewing deck is available for use by the general public from

sunrise to 10 pm everyday

The plan shall detail the specific ways in which the applicant will implement these and any other proposed management measures, over the life of the project, to provide maximum public access opportunities consistent with research, safety, and resource protection needs. All public access improvements and programs shall be in place prior to occupancy of the pier for research purposes.

6. **Lateral Beach Access.** The permittee shall be responsible for providing and maintaining unrestricted lateral access across the sandy beach beneath the pier to allow for unimpaired public access between the Salinas River State Beach south of the site and the beach north of the site. No development shall be allowed beneath the pier that would block or impair public access across this accessway. Future development in this area shall be limited to maintenance and repair activities that may occupy portions of the beach for short periods of time, and the installation of any essential utilities that shall be attached to the pier or buried beneath the sandy beach. Additionally, lateral access shall also be provided atop the abutment of the pier, and stairs constructed to provide for lateral access during high tides and high surf, when water levels prevent lateral access underneath the pier.

7. **Vertical Shoreline Access.** The permittee shall be responsible for providing and maintaining a 10-foot wide unrestricted vertical accessway along the full extent of the southern property boundary to allow for unimpaired public access between Sandholdt Road and the beach at the north end of the Salinas River State Beach parking lot. Public access signs shall be designed, maintained and conspicuously posted as required in Special Condition 1d.

8. **Deed Restriction.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) has imposed the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

9. **Archaeological Mitigation.** Should archaeological resources be discovered at the project site during any phase of construction, the permittee shall stop work until a mitigation plan, prepared by a qualified professional archaeologist and using accepted scientific techniques, is completed and implemented. Prior to implementation, the mitigation plan shall be submitted for review and approval by the State Historical Preservation Office and for review and approval by the Executive Director of the Commission. The plan shall provide for reasonable mitigation of the archaeological

impacts resulting from the development of the site, and shall be fully implemented. A report verifying compliance with this condition shall be submitted to the Executive Director for review and approval, upon completion of the approved mitigation.

10. **Conformance with Other Agency Requirements.** Prior to Commencement of Operations under this permit, the permittee shall submit to the Executive Director for review and approval, evidence of compliance with the requirements of other agencies, including the following:

    a. **National Oceanic and Atmospheric Administration:** The applicant shall provide the NOAA Office of Coast Surveys with contact information, final project blueprints, and a geographic description or gps location of the reconstructed pier to update any nautical charts that include the pier.

    b. **United Stated Coast Guard:** The applicant shall provide evidence of approval by the U.S. Coast Guard, or evidence that no such approval is necessary.

III. Recommended Findings and Declarations

The Commission finds and declares as follows:

A. Standard of Review

While Monterey County has a certified Local Coastal Program for development within its jurisdiction, the project, which extends over and into coastal waters below mean high tide, is located within the original jurisdiction of the California Coastal Commission. The standard of review for development within the Commission's original jurisdiction is the California Coastal Act, specifically the Chapter 3 policies for protection of coastal resources and public access.

Additionally, Monterey County's certified LCP, which includes the North County Land Use Plan (LUP) has specific requirements for the Moss Landing Area - including the Harbor and the "Island," which can serve as guidance to the Commission. Since the Monterey County LCP was certified in 1988, however, there have been several developments in the vicinity of the project site that were not originally accounted for in the LCP - including the relocation of the Moss Landing Marine Labs main campus following the Loma Prieta Earthquake in 1989, the ongoing use of the MLML saltwater lab and development of improved seawater intake facilities, and the construction and development of the Monterey Bay Aquarium Research Institute facilities that now occupy much of the Island north of the MLML saltwater lab site (see Exhibit D).

In light of the many changed circumstances that have occurred since LCP certification, current LCP policies regarding this area of the County may not fully protect public access and natural resources

protection as required by the Coastal Act. While not a standard of review, additional relevant concerns identified in the Commission's draft Monterey County LCP Periodic Review have been used in this staff report.

B. Project Location and Description

The Sandholdt Pier, as it is commonly called, historically extended into the Pacific Ocean from the shoreline of what is locally referred to as "the Island," a barrier island, or sand spit located west of the Old Salinas River Channel and Moss Landing Harbor (see Exhibits A through E). The pier and onshore marine lab facility is located west of Sandholdt Road near the western terminus of Sandholdt Road Bridge, where the Old Salinas River enters the Harbor and where Sandholdt Road bends northward to service the northern end of "the Island" (see Exhibits C and D). According to assessors parcel information and information submitted by the applicant, the pier and adjacent onshore parcel were acquired in 1988 by the San Jose State Foundation for expansion of existing marine lab facilities located on two adjacent parcels immediately south of the pier. The marine lab facilities south of the pier (see Exhibit H) housed the Moss Landing Marine Labs from its establishment in 1966 up till 1989, when they were damaged as a result of the Loma Prieta earthquake. The main campus and classrooms were relocated and reconstructed on an inland site along Moss Landing Road (see Exhibit B). As part of the campus relocation, the two parcels south of the pier were gifted by MLML to State Parks and subsequently restored to open space dune habitat as part of Salinas River State Beach. However, the saltwater lab facility (made up of a group of portable trailers, saltwater aquaria and tanks; see Exhibit D) was retained on the parcel that is the subject of this permit application, and the marine labs used the pier as a platform for research activities for less than 12 months, until, as a result of damages sustained by the earthquake and subsequent storms (described more fully below), it was deemed no longer safe for such use.

According to project records submitted by the applicant, Sandholdt Pier was originally constructed about 130 years ago using wooden pilings and wooden decking. The pier was last rebuilt approximately 50 years ago with similar materials. The pier was originally used for commercial shipping and later for commercial whaling (See historic photos in Exhibit G). The pier contained warehouses and residences atop the decking at various times. The pier also provided some public access during its lifetime, and historic photos show that fishing was allowed from the pier, sometimes with a nominal charge for access (see Exhibit G3).

The San Jose State University, Moss Landing Marine Laboratories have requested to demolish the remaining 100 feet of the once 480-foot long, approximately 9,600 square foot wooden Sandholdt Pier and construct a new 500-foot long, 12,832 square foot concrete pier (see site plans shown in Exhibit F). The new pier would be built in the same location as the former pier, extending into the Pacific Ocean from the western end of the parcel. The primary function of new pier facility would be a marine research pier to support marine and oceanographic research conducted through the Moss Landing Marine Laboratories (MLML) and the Monterey Bay Aquarium Research Institute (MBARI).

As proposed, the new pier will be 20 feet wide for all but the last 60 feet which will be expanded to 60 feet wide to provide an area for a 5-ton jib crane (with 20-foot high boom) to retrieve and lower oceanographic research equipment, including instrumentation and small submersible research vehicles. A 320 square foot (8 foot wide by 40 foot long) floating dock will be located along the north side of the pier adjacent to this expanded deck area, with a gangway access that can be elevated and secured when not in use. Two buildings, both 11 feet high, will also be located on the pier – a 336-square foot research equipment shed, to be located at the south western end of the pier, and a 360-square foot sieve room, to be located on the northern side, somewhat near the middle of the pier (see Exhibit F).

The concrete pier will be supported by 130 24-inch diameter concrete pilings placed 10-feet on center. In addition, nine 12-inch diameter steel pilings will support the expanded area of the pier where the jib crane will be located. The pier will be approximately 10 feet in height at the upper beach area and approximately 30 feet from the sea floor to the deck of the pier (depending on tides, waves, and slope of ocean bottom). The pier will also be equipped with pedestrian guardrails (approximately 42-inches high), security gates, antennas, a weather station and other ocean monitoring equipment. Utilities serving the pier will include a potable water line, seawater line, electric power line, telephone line, and data transmission lines.

The MLML project site includes an onshore parcel of approximately 2.3 acres owned by the San Jose State University (APN 133-232-006), and an approximately 0.3 acre State owned parcel containing submerged lands and tidelands, located directly offshore. The submerged tidelands under the pier are within the jurisdiction of the Moss Landing Harbor District (thorough a grant by the California State Lands Commission). The Harbor District has granted the applicant a construction permit for the demolition and replacement of the Sandholdt Pier and has approved a 50-year lease agreement with CSU/MLML for use of the submerged property. The pier had extended across an 80-foot wide sandy beach located at the seaward end of the parcel. However, now that the pier has been demolished, this beachfront portion is generally vacant except for the remaining concrete abutment from which the pier had extended.

The onshore portion of the MLML parcel is occupied by the Saltwater Lab facility, and as such contains a seawater pump house and several temporary trailers that serve as research labs, classrooms and office space for MLML and the California Department of Fish and Game (CDFG). On-shore facilities include sea lion keeping and research facilities, aquaria, the seawater intake system, and research offices located in several travel trailers, mobile homes, equipment sheds and one-story portable classroom units.

Two overlapping pipeline easements run along the entire northern edge of the parcel (see Exhibit E), which adjoins the MBARI parcel to the north. These easements are deeded to the Moss Landing Harbor District (MLHD) and National Refractories and Minerals (NRM) for permitted effluent discharge into the ocean. The MLHD has installed a 12-inch diameter pipe on the ground surface within the easement. This pipe terminates at the beach in an open-ended pipe coupling. During Harbor dredging operations, the MLHD uses this coupling to extend the pipeline approximately 500 feet offshore to discharge slurried dredge spoils to the permitted dredge disposal site SF-12, located in approximately 40 feet of water. NRM has an existing 51-inch outfall pipeline that extends from the NRM facility east of

Highway 1 (see Exhibit B) to approximately 600 feet offshore in about 50 feet of water. MLML has two 8-inch seawater intakes located in the NRM outfall that service both MLML and MBARI research tanks and aquaria. Return flow form MLML and MBARI seawater systems also discharges through the NRM outfall, mixed with the NRM effluent.

As part of the new pier, a seawater line from the existing saltwater intake would be connected to the sieve house for use in washing biological specimens. MLML will also relocate the dredge spoils discharge pipe, as requested by the MLHD, to the bottom of the pier deck along the entire length of the pier to aid the Harbor District's dredging process and operations. This new pipe would replace the temporary discharge pipe that is currently anchored to the seafloor, and connected to the permanent section of discharge pipe on the beach when Harbor dredging operations are underway.

The US Army Corps of Engineers (USACOE) has approved the project under their Nationwide Permit 3 for maintenance (pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act). The Monterey Bay National Marine Sanctuary (MBNMS) has also stated that authorization by the MBNMS is not necessary, because part of the pier is located outside of the Sanctuary boundaries and because construction, repair and replacement or rehabilitation of docks or piers is excepted from the Sanctuary's prohibitions on altering or placement of structures on the seabed.

In response to concerns about historic public use of the pier, the applicant has provided a public access plan (see Exhibits O and P) that includes: 1) improving lateral beach access beneath the pier by raising the base elevation of the pier where it crosses the beach relative to the old pier facility; 2) expanding their existing program of providing organized public tours of MLML facilities, currently conducted by reservation through the Friends of MLML, to include organized, escorted tours of the pier and other MLML facilities; 3) inviting other educational and environmental organizations to make use of the pier for their own curricula or sampling purposes; 4) including organized tours of the pier as part of annual MLML and MBARI open house events; 5) providing additional controlled access at the discretion of MLML and MBARI, and 6) creating new virtual access opportunities by providing the general public with access to data obtained through research activities using the pier through the Lab's website, and 7) providing interpretive, educational and informational signage to describe the historical and current uses of the pier, and to detail how tours of the pier can be arranged. However, as presently designed, the project does not include any unrestricted public access on the pier, nor does the current design allow for lateral access across the pier abutment when high water conditions prevent safe lateral access beneath the pier.

C. Issue Discussion

1. Coastal Permit Requirements

a. Coastal Permit Requirement Issue

The applicant has recently submitted materials indicating they believe that a coastal development permit

is not required for this project (included in Exhibit P), because they feel the proposed project is "replacement of a previous structure damaged in a natural disaster" due to damages sustained as a result of the Loma Prieta earthquake and subsequent El Nino storms.

b. Relevant Regulatory Policies for Coastal Permit Requirements

Coastal Act Section 30600(a) states that:

> ***Section 30600(a).*** *Except as provided in subdivision (e), and in addition to obtaining any other permit required by law from any local government or from any state, regional, or local agency, any person, as defined in Section 21066, wishing to perform or undertake any development in the coastal zone, other than a facility subject to Section 25500* [for emergency work to protect life or property, repair public facilities or highways]*, shall obtain a coastal development permit.*

Coastal Act Section 30610 provides exceptions for when a coastal development permit is not required, and includes the following:

> ***Section 30610 Developments authorized without permit.*** *Notwithstanding any other provision of this division, no coastal development permit shall be required pursuant to this chapter for the following types of development and in the following areas:*
>
> *... (g) (1) the replacement of any structure, other than a public works facility, destroyed by a disaster. The replacement structure shall conform to applicable existing zoning requirements, shall be for the same use as the destroyed structure, shall not exceed either the floor area, height, or bulk of the destroyed structure by more than 10 percent, and shall be sited in the same location on the affected property as the destroyed structure.*

c. Coastal Permit Requirement Analysis

Damage to the pier.

According to FEMA reports (dated December 28, 1994, September 7, 1995, September 27, 1995, December 13, 1995, and January 11, 1996, attached as Exhibit Q), Sandholdt Pier was severely damaged during the 1989 Loma Prieta earthquake. FEMA staff inspected the pier on December 28, 1994, and the subsequent Damage Survey Report (containing review dates of 2/10, 2/27, and 2/28/95) note that approximately 14 wooden pilings were damaged or lost as result of the earthquake, and gave a total estimate for repairs of $100,000 (with a breakdown of repair costs of $84,000 to replace the pilings, and $16,000 for inspection and general repairs). An undated narrative report written in response to a letter from the Office of Emergency Services dated January 4th 1995, and a request by the subgrantee (San Jose State University Foundation) that a new Damage Survey Report be written, notes that wooden pilings under the pier had been in bad shape prior to the earthquake, and that as a result of loss of the pilings, the north side of the pier tilted. The narrative report noted that the pier could be repaired back to a safe condition. Other later FEMA correspondence, dated September 27, 1995, states that the pier sustained further damage as a result of major storms, flooding and high ocean wave action that occurred

in the late winter of 1995. A new damage survey report, dated 1/11/96, which still referenced the inspection date of 12/28/94, also indicated that 14 pilings had been lost as a result of the earthquake, that the pier had tilted and had been closed because it was unsafe and hazardous. Based on this statement, it is assumed that research use was terminated following the earthquake due to its damaged condition. No repairs were made subsequent to the earthquake. The 1996 damage survey report also notes an estimated cost of $84,000 to replace 14 pilings, and notes that the pier deck would need to be leveled and angle bracing installed to stabilize the pier. None of the FEMA reports or correspondence includes any indication as to pier length or total number of pilings supporting the pier at the time damages were incurred. However, analysis of FEMA reports and correspondence indicate that while the pier sustained damage as a result of the earthquake and subsequent storm events, the pier was not completely ruined or destroyed at the time. None of the FEMA reports or correspondence discusses demolition of the pier as necessary or as an alternative to repair. Rather, the reports identified the degree and cost of repairs, which indicate that it is reasonable to believe that repair of the structure was feasible following both the Loma Prieta earthquake and winter storm damage incurred in 1995.

The pier was further and significantly damaged in the winter of 2001, when a portion of the pier nearest the onshore abutment collapsed and was considered a public safety hazard for beach goers. Engineers evaluated the condition of the remaining pier and indicated that it had been severely weakened by the partial collapse and continued winter wave attack, and that complete collapse was imminent, thus representing a hazard to life and property (as well as being a potential hazard to adjacent natural resource areas). The engineering evaluation therefore recommended that the pier be removed immediately. As the applicants already had a permit application in to the Coastal Commission Central Coast District Office for the removal and replacement of the existing pier, demolition of the remaining pier was approved under emergency permit 3-02-003-G, with conditions that the applicants complete the pending application for pier demolition and replacement. Therefore, while pier demolition has already occurred, pursuant to emergency permit 3-02-003-G, this staff report also includes findings and conditions related to pier demolition as part of the follow-up permitting requirement of the emergency permit.

Previous structure.

Background information provided by the applicant, and included in the Initial Study/Mitigated Negative Declaration, give dimensions for the pier as it existed in prior times. As described above, according to project records, Sandholdt Pier was originally constructed about 130 years ago using wooden pilings and wooden decking. The pier was last rebuilt approximately 50 years ago with similar materials. The pier was originally used for commercial shipping and later for commercial whaling (See historic photos in Exhibit G). The pier contained warehouses and residences atop the decking at various times. The pier also provided some public access during its lifetime, and historic photos show that fishing was allowed from the pier, sometimes with a nominal charge for access (see Exhibit G3).

Materials submitted by the applicant (included in this report as Exhibit P) include measurements of the size of the Sandholdt Pier from historical records, though no background documentation was provided showing the pier at these different times, or information identifying the source of these measurements.

Measurements made by Commission staff, were taken from topographic maps from 1954 and 1968, as well as from aerial photographs dated 1970, 1977, 1978, 1986, 1993 and 2001 (aerial photos are shown in Exhibits H, I, and D, respectively). Measurements of pier length were made from these maps and aerial photos, and are shown in Table 1, along with pier length provided by the applicant based on unidentified sources.

Table 1. Sandholdt Pier Length Measurements (taken from historic topographic quadrangle maps and aerial photographs as noted).

Date	Source (scale)	Approximate Pier Length[a] (in feet)
1925	Unidentified – from applicant	400
1942	Unidentified – from applicant	705
1949	Unidentified – from applicant	400
1951	Unidentified – from applicant	475
1954	USGS Moss Landing topographic quadrangle map (1:24,000) A square shaped widened area is depicted at seaward end of pier	400
1968	1968 Photo-revised version of 1954 USGS Moss Landing topographic quadrangle map (1:24,000)[b]	400
1970	Aerial photo (scale of 1:12,000) Includes a 50' x 50' platform at seaward end of pier	400
1977	Aerial photo (scale of 1:37,500) 50' x 50' platform is gone	350
1978	Aerial photo (scale of 1:12,000)	350
1986	Aerial photo (scale of 1:12,000)	250
1993	Aerial photo (scale of 1:12,000)	240
2001	Aerial photo (scale of 1:12,000)	200
2001	Initial study /Mitigated Negative Declaration, dated June 2001	100[c]
2002	California Coastal Records Project	0

[a]Approximate length measured from what appears to be base/abutment of pier.

[b] Moss Landing Quadrangle Map also photo revised in 1980 and 1994, shows no revisions in the depiction of the pier. However, this is contradicted by time series of aerial photographs as noted.

[c]No information was provided in IS/MND establishing the basis or actual date of this measurement.

While pier length has varied over time, measurements taken from the 1986 aerial photograph, the latest aerial photo available prior to the Loma Prieta earthquake, give an approximate length of 250 feet for the pier prior to the earthquake. Measurements taken from a 1993 photo of the pier, following the earthquake, give a length of approximately 240 feet. Additionally, information contained in the Initial Study and Mitigated Negative Declaration state that prior to demolition of the pier, only the last 100 feet of the pier remained. Therefore, while the applicant's request for construction of a 500-foot long pier may represent a rebuild of dimensions similar to the extent of the pier at certain times prior to 1968, it does not accurately describe the "previous structure" that was acquired by SJSU and that existed prior to damages sustained from the "natural disasters" identified by the applicant or based on the condition of the pier prior to its ultimate demolition.

Nor does the proposed deck coverage maintain the same area as that which existed prior to damages sustained from the natural disasters or prior to its ultimate demolition. Materials provided by the applicant indicate that the pier area varied from 20,000 square feet (sf) in 1925, to approximately 10,708 sf in 1949, with the latest area calculation provided by the applicant of 13,075 sf in 1951. However, as indicated above, there is no supporting documentation provided identifying the source of these measurements. Estimates of deck area have also been made by Commission staff based on information provided in the file, including historic photos, and site plans provided by the applicant. The estimated coverage of the proposed pier is based on site plans which show a pier, 20 foot wide by 440 feet long (8,800 sf) + an expanded platform at the seaward end of 60 feet long by 60 feet wide (3,600 sf) + an additional platform for the sieve house of 12 feet wide by 36 feet long (432 sf), for a total proposed area of 12,832 square feet (8,800+ 3,600 + 432 sf). While the original pier, as shown in photographs (see Exhibit G4), had a similar plan, with an expanded deck at the seaward end, the structure that remained prior to the Loma Prieta earthquake, and that remained prior to the ultimate demolition of the pier did not, and so a conservative estimate of pier area for these dates could be determined given a similar width of 20 feet by the length of pier at the time, (250 feet in 1986, and 100 feet in 2001), which would result in a pier area of between 5,000 and 2,000 sf respectively. The proposed rebuild of 12,832 sf would be approximately 250% of the size that existed in 1986, prior to the Loma Prieta earthquake, and more than 640% of the size of the pier that existed in 2001, prior to its ultimate demolition.

d. Costal Permit Requirement Conclusion

Assuming that the previously existing pier was destroyed by a disaster, based on analysis conducted by Commission staff, the project as proposed does not qualify for a coastal development permit exemption under Coastal Act 30610(g) because it is not within 10% of the previous size of the former pier. As the proposed pier to be reconstructed is almost twice the length of what existed at the time of the initial damage of the Loma Prieta earthquake, and exceeds the floor area of the previous structure by much more than 10 percent. Therefore, pursuant to Coastal Act Section 30600, the project requires a coastal development permit.

2. Coastal Dependent Development

a. Relevant Coastal Dependent Development Policies

Coastal Act Section 30255, states:

> ***Section 30255*** ***Priority of coastal-dependent developments:*** *Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support. (Amended by Ch. 1090, Stats. 1979.)*

While Coastal Act policies are the standard of review for coastal development permits in the Commission's original jurisdiction, the County's LCP, and specifically the North County LUP also provides guidance to the Commission as it considers proposals for development in this area of the Moss Landing Community.

With regards to Land Use and Development in this area, the North County LUP contains the following relevant policies:

> ***LUP Policy 4.3.6.F.1 Lands*** *designated for Heavy and Light Industrial use …shall be reserved for coastal dependent industry…*
>
> ***North County LUP Policy 4.3.6.C.7*** *The Sandholdt Pier … should be considered for renovation as fishing piers and docks*
>
> ***North County LUP Key Policy 5.3.1.*** *The County encourages the maximum development of commercial fishing and recreational boating facilities at Moss Landing, consistent with the conservation of the area's wetlands, dunes and other natural resources*
>
> ***North County LUP Policy 5.3.2.3.*** *Due to limited capacity of Highway One and Sandholdt Road, priority should be given on the island to expansion of commercial fishing industries and facilities that generate low volumes of traffic. Some flexibility should be maintained for other development on the island that directly serves people engaged in those above industries and would not be suitably located in other areas of Moss Landing.*

The Monterey County Periodic Review identified changed circumstances that have occurred within this area of the Harbor since time of certification, especially with regards to coastal-dependant marine research facilities that have been developed and/or expanded in the area. The following excerpts have been taken from the recent draft findings of the Monterey County LCP Periodic Review:

> *Since certification of the LCP there have been substantial changes in the Moss Landing area, the primary change being the expansion of coastal-dependent marine research facilities on the Island (MBARI) and off of Moss Landing Road (relocated Moss Landing Marine laboratory [main campus])….*

Relocation of the Moss Landing Marine Lab (MLML) main campus has resulted in additional open space land adjacent to the Salinas River State Beach. [Two of three] Marine Lab parcels were subsequently purchased by State Parks, and both agencies have been actively involved in restoration of coastal dunes on the site. The Marine Lab retains one parcel northwest of the Sandholdt Bridge where saltwater lab facilities remain, including a saltwater intake system which serves both the MLML saltwater lab and main campus, and which also provides saltwater for MBARI activities. The Marine Lab also has plans for reconstruction of the Sandholdt Pier, which was storm damaged and ultimately demolished in January 2002 after being deemed a safety hazard. The North County Land Use Plan map (Figure 2 in the LUP) needs to be updated in light of the changes in land use that have occurred in this area for both the relocation of the main campus and the remaining saltwater lab facility…

…In light of land use decisions since 1988, available opportunity sites, and projected development, recommendations are made to revise and update the plan for the Moss Landing area to protect community character and prevent resource damage. For some sites, updated designations are needed to accommodate the priority uses that have occurred and to determine the appropriate locations and densities for other priority uses.

b. Coastal Dependent Development Analysis

As defined by Coastal Act Section 30101, "coastal-dependent development or use" means any development or use that requires a site on, or adjacent to the sea to be able to function at all. As the project is for the demolition and replacement of an ocean pier, to be used primarily for marine and oceanographic research, which involves the deployment of sea-going vessels and instrumentation, the project does qualify as a coastal-dependent development and use.

The Monterey County LCP Land Use Designation and zoning for the project area is designated Light Industrial, which allows, among other things, marine related research facilities, including but not limited to laboratories, offices and other reasonable related uses.

According to information provided in the Initial Study and Mitigated Negative Declaration for this project, prepared for the Moss Landing Marine Laboratories by Rincon Consultants in June 2001:

The first Sandholdt Pier was constructed at the site approximately 130 years ago. It was first used for commercial shipping and later for commercial whaling. The pier contained warehouses and residences at various times and as recently as the 1960's. The pier was acquired by the San Jose State Foundation in 1979 along with the on-shore parcel as the site for San Jose State University's marine lab facility. The marine lab has been a functioning research and educational center since 1966. The pier immediately became part of the research program at that time. The pier is currently the only research pier in California north of Scripps Institute Pier in La Jolla.

While North County policies involving the pier focus on its potential renovation and use as a fishing pier, policy 5.3.2.3. does provide "some flexibility … for other development on the island that directly

serves people engaged in [commercial fishing and facilities that generate low volumes of traffic] and would not be suitably located in other areas of Moss Landing." As described above, since certification of the Monterey County LCP, marine research facilities have been allowed to develop and expand in the Moss Landing area. The two main research facilities include the Moss Landing Marine Lab and the Monterey Bay Aquarium Research Institute. Although not directly related to commercial fishing, research conducted by these two institutes does serve to expand the science and our knowledge of the marine environment and marine fisheries.

The Moss Landing Marine Laboratories (MLML) serves a consortium of seven California State Universities in Northern California, and offers a masters degree program in marine science, currently serving approximately 120 students, with nine full time faculty, several adjunct professors and affiliated researchers, and a support staff of about 50 people. The consortium of schools served by MLML includes the CSU campuses at San Jose, San Francisco, Hayward, Stanislaus, Sacramento, Fresno, and Monterey Bay. Since its establishment in 1966, the MLML has become the second oldest marine Lab on the Monterey Bay and has grown an international reputation for excellence in marine research and education. MLML provides its graduate students a hands-on, field-oriented approach in their marine resources curriculum, and its faculty are all actively involved in state-of-the-art research in a wide variety of disciplines, which include Benthic Ecology, Biological, Geological, and Chemical Oceanography, Environmental Biotechnology, Ichthyology, Invertebrate Zoology, Ornithology & Mammalogy, Phycology, and Physical Oceanography. MLML also has one of the largest research diving programs in the nation, and its marine operations department maintains research vessels from a fleet of Boston Whalers, to the 135-foot Research Vessel Point Sur, owned by the National Science Foundation.

Although the main MLML campus is relocated along Moss Landing Road, southeast of Sandholdt Road Bridge (see Exhibit B) following the Loma Prieta Earthquake, it has retained a saltwater lab on the project site, with a seawater intake system that serves both the saltwater lab site and the main campus, as well as MBARI operations and research.

The Monterey Bay Aquarium Research Institute (MBARI) is a world center for advanced research and education in ocean science and technology. MBARI is a private, non-profit research center, funded by the David and Lucile Packard Foundation. MBARI staff includes approximately 170 scientists, engineers, and operations and administrative staff. MBARI staff work in both experimental and theoretical ocean sciences, and developing or adapting supporting technology. MBARI's current efforts span eight research themes, including: benthic processes, midwater research, upper ocean biogeochemistry, MBARI Ocean Observing System (MOOS), remotely operated vehicle enhancements and upgrades, new insitu instruments, infrastructure support, and information dissemination and outreach. MBARI owns and operates two research ships and remotely operated vehicles that are currently berthed within the Moss Landing Harbor. MBARI also maintains moorings offshore, equipped with ocean-monitoring instruments.

The ocean pier replacement will allow for research vessels to tie up directly to the pier, saving valuable time and other resources used in coming all the way into the harbor to dock and exchange crew and

equipment (especially difficult during harbor dredging operations and times when sedimentation and shoaling have reduced navigational depths and maneuvering within the harbor). The ocean pier and jib crane will allow for loading and unloading of equipment and staff, as well as direct deployment of oceanographic research instrumentation, thus aiding the mission of these research facilities. Relocation of the MLHD dredge disposal pipe line along the pier will also aid the Harbor District during dredging operations necessary to maintain navigable depths within the main channel and berthing areas of the harbor.

The Sandholdt Pier replacement project is consistent with Coastal Act Policy 30255, because the pier is a coastal dependent structure that will serve coastal dependent uses (marine and oceanographic research, instrument and crew deployment, vessel docking operations) for marine research facilities as well as serving to improve dredge operations conducted by the Moss Landing Harbor District.

3. Coastal Hazards

a. Relevant Coastal Hazards Policies

The Coastal Act, in Section 30253 also requires that:

> ***Section 30253 Minimization of adverse impacts:*** *New development shall:*
>
> *(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs….*

b. Coastal Hazards Analysis

As identified in the Initial Study, the project site is located on a river-mouth spit composed of unconsolidated aeolian, fluvial, beach and near-shore deposits. Sediment deposited in these low-lying marine/fluvial environments includes fine sand, clay and organic silts, which are susceptible to liquefaction during strong seismic shaking events. While active earthquake faults do not transect the site, the entire Moss Landing area is located between the active San Andreas Fault (located approximately 12.5 miles east of the site) and the Sur-San Gregorio Fault (located offshore, approximately 18 miles west of the site). In addition, the Monterey Bay Fault zone is located approximately 5 to 6 miles southwest of the site.

A geotechnical investigation report, conducted for the reconstruction of the seawater intake and recirculation system ("Final Report, Geotechnical Engineering Study, Seawater Shore System, Moss Landing Marine Laboratories, Moss Landing, CA, Rutherford & Chekene, October 20, 1997), concluded that the site would be subject to one strong earthquake during the life of the proposed structure. The design earthquake for the seawater intake system is a 7.9 magnitude seismic event on the

San Andreas Fault lasting approximately 48 seconds and generating a peak ground acceleration of 0.48g.

Because there is no way to completely avoid seismic hazards in this tectonic setting, it is important that structures be designed in accordance with seismic requirements specified in the Uniform Building Code, and by designing and constructing the pier in accordance with recommendations identified in the geotechnical report. The project has therefore been conditioned accordingly (see Special Condition 3).

The project site is located in an area classified as a high liquefaction zone. Historical data from the 1906 and 1989 Loma Prieta earthquakes indicates that there was substantial ground failure due to liquefaction and lateral spreading in the Moss Landing area during those events. The Moss Landing Marine Lab main buildings, which had been located south of the current project site, were damaged and partly collapsed during the Loma Prieta event, and thus were later rebuilt on another parcel further inland. The geotechnical report prepared for the site (1997) concluded that a settlement of 9.5 to 10 inches would be generated at the site by the maximum credible earthquake. Based on the fact that such disturbance has occurred previously during a strong seismic event, it is possible that it can reoccur, given the loose unconsolidated sediments that underlie the site. Such ground failure, including liquefaction, lateral spreading or differential settlement of the project site, could cause damage to the pier and its appurtenances. Therefore it is important that the pilings supporting the pier be made of reinforced concrete or steel pilings, driven deep enough to penetrate any potentially liquefiable soils (at least 50 feet, and embedded to a depth sufficient to support the pier both vertically and laterally. Thus the project has been conditioned accordingly (see Special Condition 4).

The Initial study also identifies the fact that the project is located in a potential flooding zone (potentially inundated by the failure of either the Nacimiento or San Antonio Dam) as well as a potential tsunami zone. However, because of the proposed elevation of the pier (approximately 20 feet above sea level at mean low tide, and approximately 10 feet above the upper beach area), it is unlikely that site flooding in the event of dam failure (which would likely be dissipated over the large distance between the dams and the project site), or wave impact forces in the event of a tsunami (predicted to exceed 6 feet once every 100 years and 11.7 feet once every 500 years) would cause a significant risk to the proposed pier.

Therefore, As conditioned to be designed and constructed in conformance with Uniform Building Code for seismic safety, with pilings embedded at least 50 feet, the project will be consistent with Coastal Act policies 30253 requiring the minimization of risks to life and property due to seismic, flood and wave hazards.

4. Water Quality and Marine Resource Protection

a. Relevant Water Quality and Marine Resource Protection Policies

Coastal Act Section 30230, states:

> ***30230****…Marine resources shall be maintained, enhanced and where feasible, restored…Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*
>
> ***30231.*** *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored…*

Additionally, Section 30232 requires that:

> ***30232****. …Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.*

Furthermore, Coastal Act Section 30233 provides in part that:

> ***30233****…(a) the diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects and shall be limited to the following: … (1) New or expanded port, energy, and coastal dependent industrial facilities, including commercial fishing facilities; (2) maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps…(4) in open costal waters, other than wetlands,…new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities. (5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*

In addition to these policies, the County's LCP also provides guidance to the Commission as it considers proposals for development in this areas of the Moss Landing community.

The North County LUP contains the following policies for protecting water quality:

> ***LUP Policy 2.3.3.B.8.*** *Oil and other toxic substances shall not be allowed to enter or drain into the estuarine system. Oil spill and toxic substance discharge contingency plans shall be*

developed by the appropriate agencies of Monterey County to coordinate emergency procedures for clean-up operations of all foreseeable conditions. New development shall be permitted adjacent to estuarine areas only where such development does not increase the hazard of oil spill or toxic discharge into the estuaries.

LUP Policy 2.3.3.D. All new and/or expanding wastewater discharges into the coastal waters of Monterey County shall require a permit for the Health Department….

LUP Policy 2.5.2.2. Point and non-point sources of pollution of coastal waters shall be controlled and minimized

With regards to Marine Resource protection, the North County LUP contains the following relevant policies:

LUP Policy 2.3.3.B.6. *Dredging or other major construction activities shall be conducted so as to avoid breeding seasons and other critical phases in the life cycles of commercial species of fish and shellfish and other rare, endangered, and threatened indigenous species.*

b. Water Quality and Marine Resource Protection Analysis

The pier will extend in and over open coastal waters of the Monterey Bay, with pilings driven into the sandy bottom of the ocean floor. While the site is located near the head of the Monterey Submarine Canyon, the project site it is located in shallow waters atop the southern flank of the canyon rim, which contains broad sand flats and sand bars.

The marine biological assessment prepared for the project by ABA Consultants indicates that the sea bottom in and around the project site is comprised of a sand-dominated habitat that experiences a local wave climate that results in a winter scour/summer rebuild cycle with changes in bottom topography of 1 to 2-feet annually. No rare or endangered benthic species occur within the project area. The dominant benthic species, capable of living in these naturally shifting bottom sediments, are polychaete worms, which are relatively motile and tolerant of extreme environmental disturbances. While piling emplacement may impact some of these benthic organisms, losses are expected to be minimal relative to the number of organisms that inhabit the area. Sediment suspended or shifted by pile driving activities is expected to be minimal compared to that moved regularly by oscillatory wave currents and tidal scour. Therefore, pile-driving activities are not expected to have any significant adverse impacts on the bottom sediments or benthic organisms.

As the pier will be a replacement for the previous pier which, due to damage sustained over many years, was reduced to less than $1/5^{th}$ its original length, the new pier pilings will serve to provide additional substrate onto which sessile organisms can attach themselves, and thereby may serve to replace some habitat provided previously by the pilings before destruction of the pier. The pier is not expected to affect any commercial or recreational fishing stock, or fish populations in general, since these species can avoid the project area while construction activities are on going.

Since the project requires work in and adjacent to open coastal waters, which could lead to potential

adverse water quality impacts, it has been conditioned to include implementation of best management practices that avoid or minimize any unpermitted discharge of liquids or construction materials into the ocean. Construction staging and storage areas will be located and managed in such a way so that project activities will not adversely impact water quality. Additionally, conditions have been placed to avoid the potential spillage of concrete into marine waters. Since the project site commonly experiences active sediment movement daily, silt curtains are not required, however, containment booms or other in-water methods for containing construction activities and solid waste discharge that may occur are required. As pier construction will be of limited duration, and construction methods have been conditioned by this permit to require use of best management practices to avoid oil spills and construction materials from entering the water, the project is not expected to adversely affect any other marine or marine mammal species.

Additionally, demolition of the pier, as required by emergency permit 3-02-003-G, was carried out with similar water protection conditions. Demolition activities were documented by photos and a letter report (attached as Exhibits L and M), and staff visited the project site at the end of demolition and observed that activities had been conducted in a manner most protective of water quality and sensitive habitat and wildlife.

Finally, although the dredge disposal pipeline, and saltwater intake lines will be attached to the pier, discharges associated with these pipelines are authorized under separate permits. No new discharges to waters of the Monterey Bay are associated with this project, and no other wastewater discharges are allowed as part of this permit. The Sieve building to be located on the pier will use and discharge saltwater through the existing intake and discharge lines; no chemicals or other non-marine materials will be added to the seawater used for research purposes prior to discharge back into the ocean.

As new and diverse operations may be conducted on the pier, which may result in potential unforeseen future adverse water quality impacts, the applicant will be required to develop and implement a long-term pollution prevention program and provide water quality protection training to all persons involved in construction and research use of the pier.

The project has thus been designed and conditioned to protect water quality and marine resources, consistent with Coastal Act policies.

5. Environmentally Sensitive Habitat Areas

a. Relevant Environmentally Sensitive Habitat Area (ESHA) Policies

Coastal Act Section 30240, states:

> ***30240(a)****…Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.*

The Coastal Act, in Section 30107.5, defines an environmentally sensitive area as

> ***30107.5****…any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.*

While Coastal Act policies are the standard of review for coastal development, the North County LUP also provides guidance to the Commission as it considers proposals for development in the Moss Landing area. North County LUP Section 2.3 describes environmentally sensitive habitat areas to include, among other things, rare and endangered species habitat, all coastal wetlands and lagoons, all marine wildlife, kelp beds and indigenous dune plant habitats. The LUP also states that only coastal dependent uses are permitted within sensitive habitat areas including nature education and research, hunting, fishing, and aquaculture.

With regards to environmentally sensitive habitat areas, the North County LUP contains the following relevant policies:

> ***LUP Policy 2.3.2.1.*** *With the exception of resource dependent uses, all development, including vegetation removal, excavation, grading, filling, and the construction of roads and structures, shall be prohibited in the following environmentally sensitive habitat areas: riparian corridors, wetlands, dunes, sites of known rare and endangered species of plants and animals, rookeries, major roosting and haul-out sites, and other wildlife breeding or nursery areas identified as environmentally sensitive. Resource dependent uses, including nature education and research hunting, fishing and aquaculture, where allowed by the plan, shall be allowed within environmentally sensitive habitats only if such uses will not cause significant disruption of habitat values.*
>
> ***LUP Policy 2.3.2.*** *Where private or public development is proposed in documented or potential locations of environmentally sensitive habitats - particularly those habitats identified in General Policy No. 1 - field surveys by qualified individuals or agencies shall be required in order to determine precise locations and to recommend mitigating measures to ensure protection of any sensitive habitat present. The required survey shall document that the proposed development complies with all applicable environmentally sensitive habitat policies.*
>
> ***LUP Policy 2.3.3.6.*** *The County shall ensure the protection of environmentally sensitive habitats through deed restrictions or dedications of permanent conservation easements. Where land divisions or development are proposed in areas containing environmentally sensitive habitats, such restrictions or easements shall be established through the development review process. Where development has already occurred in areas supporting sensitive habitat, property owners should be encouraged to voluntarily establish conservation easements or deed restrictions.*
>
> ***LUP Policy 2.3.2.****7. Where public access exists or is permitted in areas of environmentally sensitive habitats, it shall be limited to low intensity recreation, scientific or education uses such as nature study and observation, education programs in which collecting is restricted, photography, and hiking….*

LUP Policy 2.3.2.8. *Where development is permitted in or adjacent to environmentally sensitive habitat areas (consistent with all other resource protection policies), the County, through the development review process, shall restrict the removal of indigenous vegetation and land disturbance (grading, excavation, paving, etc.) to the minimum amount necessary for structural improvements.*

LUP Policy 2.3.2.10. *Construction activities, industrial, and public and commercial recreational uses which would affect rare and endangered birds shall be regulated to protect habitats of rare, endangered, and threatened birds during breeding and nesting seasons. Regulations may include restriction of access, noise abatement, and restriction of hours of operation of public or private facilities. Regulations shall not prohibit emergency operation of service and public utility equipment.*

LUP Policy 2.3.3.A.6. *Coastal dune habitats in areas shown as Resource Conservation or as Scenic and Natural Resource Recreation on the plan map shall be preserved and protected. Appropriate uses in such areas shall be limited to scientific, education and low intensity recreational uses, and within the Moss Landing area, essential utility pipelines where no feasible alternative exists. Disturbance or destruction of dune vegetation shall be prohibited, unless no feasible alternative exists, and then only if re-vegetation with similar species is made a condition of project approval. Any resulting dune disturbance shall be restored to the natural condition.*

b. ESHA Analysis

As described above, the project site is located in and adjacent to the marine waters of the Pacific Ocean, within the Monterey Bay, and beach and dune habitat of the Salinas River State Beach. As described in the North County LUP, all marine wildlife is considered sensitive, as are special status species. Sensitive wildlife species known to occur within the project area include the southern sea otter, brown pelican, and the western snowy plover.

Pier demolition, and reconstruction may temporarily impact these species by removing existing roosting, foraging and refuge habitat that had been provided by the existing pier. However, this impact would be temporary, and construction of the replacement pier will provide the same features as the existing pier, thus it is expected that these same habitats will quickly redevelop on and around the new pier. While the pier was removed in 2002, it is not believed that any new migratory routes have been established that would be adversely impacted by the replacement of the pier in the same location.

Care will need to be taken during construction to avoid injury to the southern sea otter and other animals that might be attracted to the construction site, thus the permit has been conditioned to require mitigation measures to protect the southern sea otter, which include designating worker(s) to monitor on-site compliance, and halt any activity that might result in injury or death. The monitors will need to consult with CDFG and USFWS for measures to discourage marine mammals and birds from areas where construction activities might otherwise cause them harm. Use of seal bombs or any firearms, however shall not be allowed. The monitors shall be required to record all interactions with sea otters encountered during the project activities, including the approximate number of animals involved, any

unusual behavior observed, the response of the sea otters to project activities and the response to the intentional harassment. These mitigation measures have been incorporated as special conditions of this permit to protect marine mammals and shorebirds during construction.

Additionally, the marine biological assessment prepared for the project by ABA Consultants, June 1, 2000, identifies the sandy beach approximately 1/5th of a mile south of the project site as a nesting habitat for western snowy plover. While the sandy beach area in and adjacent to the project site have similar characteristics as the plover nesting habitats, the area around the project site has much more human activity due to existing development and uses in this area. However, since snowy plover have been observed nesting in close proximity to beach areas used for human recreational use, it is important to mitigate for any direct or indirect impacts that project activities may have on this species during breeding and nesting season. Thus the permit has been conditioned to require surveys prior to the start of construction to determine if any nesting bird species, and/or sensitive bird species, including bank swallows and western snowy plovers are present at the project site, and if so, to develop a mitigation plan in consultation with the US Fish and Wildlife Service to prevent impacts associated with project activities.

Finally, numerous sensitive indigenous dune plant species are known to occur within one mile of the site and include central dune scrub, Monterey spineflower, robust spine flower, Eastwood's goldenbush, coastal wallflower, Menzie's wallflower, Yadon's wallflower, sand gilia, beach layia, Tidestrom's lupine, seaside bird's beak. Other sensitive wildlife associated with coastal dune habitats include black legless lizard, bank swallow, globose dune beetle, and Smith's blue butterfly. The Salinas River State Beach property immediately south of the project site include coastal dune habitat restored as part of mitigation associated with relocation of the main MLML campus. To prevent any project related impacts to these areas, construction activities will be sited and designed to avoid these areas; fencing material will be used to mark all dune areas in or adjacent to the Salinas River State Beach within the vicinity of the project area, and no construction workers or construction activities will be allowed in these protected dune areas. Similarly, project related equipment, vehicles and or materials shall not be stored or operated on unpaved areas south of the project site. Furthermore, all construction equipment will be required to conform to sound control requirements and will be located as far as possible from sensitive receptor locations. These measures will ensure that the project will be compatible with the continued recreational use of these areas and the habitat use of the adjacent beach and dune areas.

Therefore, as conditioned to protect sensitive marine mammals, shorebirds, and existing dune habitat and associated sensitive wildlife, no significant disruption of environmentally sensitive habitat areas will result from the proposed project. Therefore, the project conforms to Coastal Act and LCP policies designed to protect environmentally sensitive habitat areas.

6. Public Access and Recreation

a. Public Access and Recreation Issues

The primary Coastal Act issue raised by the project is the protection and the provision of maximum access and recreation opportunities, as required by Chapter 3, Article 2. The Monterey County certified LCP, which provides guidance to the Commission, also requires the protection and enhancement of coastal access and recreation opportunities, and specifically recommends restoring the former Sandholdt Pier as a fishing pier. In addition, the LCP encourages the use of existing piers for access and recreation where compatible with commercial fishing.

b. Relevant Public Access and Recreation Policies

Coastal Act Section 30604(c) requires that every coastal development permit issued for any development between the nearest public road and the sea includes a specific finding that the development is in conformance with the public access and recreation policies of Chapter 3 of the Coastal Act. Specifically, Sections 30210 through 30213, 30220 and 30224 of Chapter 3 protect public access and recreation. In particular, these policies require that:

30210. *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

30211. *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization…*

30212 *(a)Pubic access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety…(2) adequate access exists nearby…(b) for purposes of this section, "new development" does not include …(3) improvements to any structure which do not change the intensity of its use, which do not increase the floor area, height, or bulk of the structure by more than 10 percent, which do not block or impede public access, and which do not result in a seaward encroachment by the structure*

30213: *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. …*

30214. *(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:*

(1) Topographic and geologic site characteristics.
(2) The capacity of the site to sustain use and at what level of intensity.
(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.

(c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

With regards to Public Access and Recreation in this area, the North County LUP contains the following relevant policies:

North County LUP Policy 5.3.2.5. *Use of existing piers for access and recreational purposes should be encouraged when compatible with commercial fishing uses.*

North County LUP Policy 5.3.3.6*. The Sandholdt Pier should be considered for renovation as a fishing pier.*

Finally, Section 4 of Article X of the California Constitution, specifically referenced in Coastal Act sections 30210 and 30214, states:

No individual, partnership, or corporation, claiming or possessing the frontage or tidal lands of a harbor, bay, inlet, estuary, or other navigable water in this State, shall be permitted to exclude the right of way to such water whenever it is required for any public purpose, nor to destroy or obstruct the free navigation of such water; and the Legislature shall enact such laws as will give the most liberal construction to this provision, so that access to the navigable waters of this State shall be always attainable for the people thereof.

c. Public Access and Recreation Analysis

As discussed previously, the applicant's main goal of reconstructing the Sandholdt Pier is so it can function as a research pier to support marine and oceanographic research conducted by the Moss Landing Marine Lab (MLML) and Monterey Bay Aquarium Research Institute (MBARI). Both of these organizations also use the process and products of their research activities to teach and educate the public about marine science and oceanographic technologies. While both organizations provide the general public some access and interpretive displays at their main facilities, MLML also serves the public as an educational institution that provides graduate level studies in marine science and oceanography to students enrolled in the California State University system.

Historic photos show that the pier had previously been used for public fishing, with a small fee for day-use (Exhibit G3), and LCP policies recommend restoring the Sandholdt Pier as a fishing pier. Correspondence from a local resident also indicates that pier had provided unrestricted access for fishing between the 1950's and early 1970's (see Exhibit T). Additional investigation also revealed that the pier served as a coastal destination point for passengers of the narrow gauge Pajaro Valley Consolidated Railroad (see photos in Exhibit S).

Although public access and scientific interpretation is an integral part of the MLML mission, the applicants are reluctant to allow full, unmonitored public access and fishing on the pier, or even more limited public access at the base of the pier, due to concerns regarding public safety risks and liability issues related to ongoing experiments conducted from and adjacent to the pier. As described by the applicant,

> *…[MLML's] ongoing research projects costing hundreds of thousands of dollars rely upon expensive equipment [and] critically controlled laboratory or environmental conditions. The exposure of the public and the risk that the public poses to the execution of these projects precludes even controlled access in many areas…[with regards to the research pier] the risk to the public and the resultant liability that the public poses to ongoing experiments is even larger than in the controlled laboratory situation. The pier will be equipped with high voltage, dangerous heights and millions of dollars worth of scientific equipment and projects…*

MLML has also expressed concern about the funding necessary to support additional access amenities with the project. MLML's concerns are based in part on concerns expressed by the manager of the Scripps research pier in La Jolla, California (as presented by the applicant in an email message from Ron McConnaughey, Facilities manager of the Scripps Pier – in Exhibit N3). These concerns include the potential entanglement of fishing lines with scientific equipment and in-water research divers (who apparently have actually been hooked with fishing lines at the Scripps Pier). Thus, the applicant feels that use of the pier for research activities as described above may conflict with fishing activities conducted from or adjacent to the pier, as well as with full, un-monitored use of the pier by the general public.

The applicant has proposed a public access plan (the MLML Research Pier Public Access Plan attached in Exhibit N), which according to the applicant is intended to provide public access consistent with MLML's education and research goals. The proposed public access plan includes the following components: 1) improving lateral beach access beneath the pier by raising the base elevation of the pier where it crosses the beach to a height of 10 feet above ground level; 2) expanding the current program of providing organized public tours of MLML facilities, currently conducted by reservation through the Friends of MLML, to include organized, escorted tours of the pier and other MLML facilities; 3) inviting other educational and environmental organizations to make use of the pier for their own curricula or sampling purposes; 4) including organized tours of the pier as part of annual MLML and MBARI open house events; 5) providing additional controlled access at the discretion of MLML and MBARI, and 6) creating new "virtual access" opportunities by providing the general public with access to data and information gleaned from research activities conducted from the pier through the Lab's

website. The applicant has since updated their earlier plan to also include interpretive signage illustrating the current and historic use of the pier, interpretation of some of the research activities associated with the pier, and information about how to schedule guided tours of the research pier at times that are safe for the public and do not interfere with ongoing research efforts (see Exhibit O).

The public access plan proposed by the applicant is insufficient to the meet the requirements of the Coastal Act that call for the protection and provision of for maximum public access, because it provides only very limited access opportunities on the pier, in the form of escorted tours by reservation only and occasional open house events. As discussed below, it appears that other forms of public access, short of full, unmonitored access on the pier, are feasible and reasonable to provide in a manner that is compatible with research and educational use of the pier. In addition, in lieu of full access onto the pier, reasonable and appropriate public access is available in the form of a vertical accessway from the public road to the pier/beach location.

The proposed pier, of course, will be located almost entirely on and over public tidelands and submerged lands. As described earlier, the Moss Landing Harbor District was granted the tidelands of the project location. Chapter 1190 of the Statutes of 1947 provided for the conveyance of certain tidelands to the Moss Landing Harbor District, and includes the following description, conditions and reservations of the grant:

> *[Description] Section 1. There is hereby granted to the Moss Landing Harbor District, hereinafter called "district"…all the right, title and interest now held by the State of California …all lands, salt marsh, tide lands, submerged lands and swamps and overflowed lands described as follows: The Old Salinas River channel from the northerly extremity to its mouth southerly to the existing county road across said channel south of the existing bridge at Moss Landing; the Pacific Ocean opposite said portion of the Old Salinas River with its northerly and southerly boundaries drawn due west…*
>
> *[Conditions] a. …that said district…may grant franchises thereon for limited period…for wharves and other public uses and purposes and may lease said lands, or any part thereof, for limited periods…for purposes consistent with the trust upon which said lands are held by the State of California, and with the requirements of commerce and navigation at said harbor. b. That said lands shall …always remain available for public use for all purposes of commerce and navigation and the State of California shall have at all times the right to use without charge, all wharves, docks, piers, slips, quays, and other improvements and facilities constructed on said lands, or any part thereof, for any vessel or railroad, owned or operated by the State of California…*
>
> *[Reservations] d. There is hereby reserved, however, in the people of the State of California the absolute right to fish in the waters of said harbor with the right of convenient access to said waters over said lands for said purposes together with the right of navigation*

By its terms, the conditions and reservations of the grant require that public access remain available on all facilities, including piers and wharves, constructed on the tidelands and submerged lands that have been granted by the State to the Harbor District.

The real estate lease between the Harbor and MLML/CSU under which MLML will be using the state lands granted to the Harbor specifically references the lands granted to the Harbor. The Constructions Permit from the Harbor to MLML further requires that "the pier will be accessible to the public subject to California Coastal Commission restrictions."

Regardless of these legal instruments, the pier will be constructed on and occupy public tidelands. Providing public access, therefore, is appropriate in the context of mitigation for the pier's occupation of public land, and interference with other public uses of the public tidelands and waters. It might also be noted that public funding is being used for the demolition and reconstruction of the pier, which will be an integral component of the California State University Moss Landing Marine Lab, with a portion of the funding being provided by the Federal Emergency Management Agency (FEMA), to repair damages sustained during the Loma Prieta Earthquake and subsequent winter storms, and additional public funds provided for the project by the California State University System. Thus it is reasonable that the Constitutional and state law requirements to provide maximum public access be accommodated where feasible, and where it can be accomplished without undue interference with the other important public research purposes of the proposed facility.

As discussed previously, there is also evidence of historic public use of the former Sandholdt Pier, including fishing from the pier and as a train stop for recreational visits. The pier was apparently closed to public access, however, at or around the time of acquisition for use by MLML.

Public access does exist south of the site, where the dedication of a vertical accessway from Sandholdt Road to the beach was previously required as mitigation for the MLML main campus relocation following the Loma Prieta earthquake, however the boardwalk access is located at the south end of the Salinas River State Beach parking lot, approximately 500 feet south of the southern property boundary. The other nearest vertical access exists approximately 1,000 feet north of the site, between the MBARI complex of buildings and Phil's Fish House restaurant; however, these two accessways are more than 1,500 feet apart. Additionally, lateral access does currently exist across the beach during most tidal levels, however during times of high tides and high surf, water levels reach all the way across the beach to the concrete pier abutment that remains on site, and lateral access over the abutment is impaired due to the large boulders and steep ascent necessary to climb over the pier abutment in order to get across the parcel. Without lateral access across the pier abutment at high water levels, continuous lateral access along the beach is difficult, and the public is forced to use the existing vertical access ways, which as described above are more than 1,500 feet apart.

Reconstruction of the pier in this location, the only ocean pier located between Monterey and Seacliff State Beach (approximately 15 and 13 miles away, respectively), allows a rare chance for the public to view the coast and experience the ocean from a different perspective than the average beach experience. Thus efforts should be made to maximize the public access opportunities provided by reconstruction of

the pier, such as by allowing some form of unrestricted access atop the pier, in a manner that would be consistent with various research and educational activities that will be ongoing. Because of the complete demolition of the old pier structure, reconstruction of a pier at this location is not constrained by existing physical structures, so changes to the design to incorporate some form of physical access can be made and can enable such improvements to be integral to the basic design, thus incorporating its structural integrity and safety into the design prior to construction. Therefore, to maximize public access in a manner that would least impact research and educational activities that would be conducted on the pier, the permit has been conditioned to submit revised plans to include an expanded deck (at least 1,000 square feet in area) for unrestricted public access at the landward end of the pier, upon which interpretive, educational and directional signage can be located, and which can be designed to be outside of the deck area needed for ongoing research and educational activities. Commission staff has previously discussed the possibility of making the entire pier facility available to the public, including fishing, but the MLML representatives have maintained that providing such access is not feasible, and would unduly interfere with their research activities.

In addition to at least some physical access on the pier, mitigation is required for the project's impacts to lateral access. In addition, as the parcel that will be used to support the base of the pier is located between the nearest road and the sea, lateral and vertical shoreline access should be provided across the parcel as required by the Coastal Act. Both lateral and vertical access across the Moss Landing shoreline also are important elements of the proposed California Coastal Trail alignment in this area, as detailed in recommendations recently submitted by the Coastal Commission to Monterey County as part of the Monterey County LCP Periodic Review. Regulations for coastal access outlined in Monterey County LCP Section 20.144.150, generally require that residential development provide vertical access every 500 feet in urban areas; and that development for industrial uses on shoreline parcels provide vertical access across the parcel between the nearest public road and the sea. While neither of these cases specifically deals with public uses such as the MLML pier proposal, it suggests that public access at least every 500 feet is important in urban areas. Since the distance between the nearest available vertical accessways is over 1,500 feet, the project has been conditioned to require a vertical access easement between Sandholdt Road and the beach along the southern boundary of the project parcel. This vertical access requirement is reasonable and appropriate in the context of the proposed use of public tidelands that will not be fully mitigated by limited public access at the base of the pier.

Improved lateral access beneath the pier is already part of the project design, which includes raising the base elevation of the pier where it crosses the beach to a height of 10 feet above ground level. However, as described above, lateral access under the pier may be blocked or unsafe at certain times of high water, therefore the permit has been conditioned to require construction of stairs or ramps on both sides of the pier abutment to allow lateral access across the site at all times, especially when high water prevents safe lateral access beneath the pier.

Accordingly, approval of the project has been conditioned to require the provision and maintenance of unrestricted lateral access across the sandy beach beneath the pier to allow for unimpaired public access between the Salinas River State Beach south of the site and the beach north of the site, stairs or ramps on the north and south side of the pier to allow lateral access across the site at all times, and a 10-foot

wide unrestricted vertical accessway along the full extent of the southern property boundary to allow for unimpaired public access between Sandholdt Road and the beach. As these public access elements are not currently included on project plans, the conditions of approval require the applicant to submit final pier plans for Executive Director Review and approval that identify the specific location of the accessways, along with any design changes necessary to provide such access. A signage plan is also required to identify the specific location and content of all interpretive and informational signs to be installed within the public access area of the pier, as well as signs indicating restrictions on fishing that may be necessary to prevent conflicts with research activities.

Public access provisions required by this permit will be memorialized through the required recordation of a deed restriction acknowledging the conditions of the permit. Provision of lateral access beneath the pier would provide for public use of the beach, while also allowing for the emplacement of pier abutment and structural pilings, any maintenance and repair activities that may occupy portions of the beach for short periods of time, and emplacement of any essential utilities that may need to be attached to the pier or buried beneath the sandy beach. Provision of lateral access atop the pier would allow for emplacement of any interpretive, educational or directional signage or seating approved by Executive Director review of final plans prior to construction, as well as any maintenance and repair activities that may be necessary as part of ongoing use of the area. Provision of vertical access along the southern property boundary would allow for construction of a boardwalk or wire or rope fencing to keep visitors from entering dune restoration areas or prevent unauthorized entry to the lab facilities, allow heavy equipment access to the beach as part of approved rescue or repair operations, and to allow ongoing maintenance and general repair activities on or adjacent to the accessway itself.

Finally, staff from the National Oceanic and Atmospheric Administration's Office of Coast Surveys has indicated that an update of the coast and ocean charts containing the pier would be needed. Therefore, the permit has been conditioned to comply with NOAA requirements for updating the charts to account for the extent and location of the pier replacement. Additionally, as the new pier will need to provide adequate lighting and markings to ensure navigational safety in open coastal waters, the pier has been conditioned to require approval by the U.S. Coast Guard.

d. Public Access Conclusions

While concerns expressed by the applicant regarding unrestricted public access are legitimate and should be considered, they are not insurmountable; additional measures could be taken to further maximize public access consistent with public safety and liability concerns. Therefore, the permit has been conditioned to incorporate specific public access provisions into the project design. Special Conditions of approval require the applicant to modify the project plans to include an expanded portion of pier that can serve as a public viewing deck, outside of research activities and upon which interpretive and educational signage may be placed, to provide vertical access along the southern property boundary and to provide stairs or ramps on the north and south side of the pier to allow lateral access across the site at all times, especially when high water prevents safe lateral access beneath the pier.

Only as conditioned to design the pier in a way that enables physical access on a portion of the landward end of the pier outside of ongoing research activities, provide lateral access across the site at all times, provide unimpaired vertical access from Sandholdt Road to the beach, submit necessary information to update navigational charts and receive approval from the US Coast Guard to ensure navigational safety in open coastal waters, the proposed project would maximize public access consistent with Coastal Act policies. Additionally, since the dredge disposal pipelines will be attached to the pier, public access on the beach in the vicinity of the pier will be improved. Locating the dredge disposal pipelines on the pier also helps the Harbor District's dredging program which is necessary to protect Coastal Act priority coastal dependent uses, which include recreational and commercial boating, fishing, and recreational beach opportunities consistent with Coastal Act Sections 30210, 30213, 30220, 30224, 30234 and 30234.5.

6. Archaeological Resources

a. Relevant Archaeological Resources Policies

Section 30244 of the Coastal Act states:

> *Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.*

Land Use Plan Section 2.4 also provides guidance on this topic as follows:

> ***LUP Key Policy 2.9.1.*** *North County's archaeological resources, including those areas considered to be archaeologically sensitive but not yet surveyed and mapped, shall be maintained and protected for their scientific and cultural heritage values. New land uses, both public and private, should be considered compatible with this objective only where they incorporate all site planning and design features necessary to minimize or avoid impacts to archaeological resources.*
>
> ***LUP Key Policy 2.9.2.1****. Monterey County shall encourage the timely identification and evaluation of archaeological, historical, and paleontological resources, in order that these resources be given consideration during the conceptual design phase of land use planning or project development.*
>
> ***LUP Key Policy 2.9.2.2.*** *Whenever development is to occur in the coastal zone, including any proposed grading or excavation activity or removal of vegetation for agricultural use, the Archaeological Site Survey Office or other appropriate authority shall be contacted to determine whether the property has received an archaeological survey. If not, the parcel(s) on which the proposed development will take place shall be required to have an archaeological survey made if located:*
>
> *a) within 100 yards of the floodways of the Pajaro or Salinas Rivers McCluskey,*

Bennett, Elkhorn, Moro Cojo, or Tembladero Sloughs, the Old Salinas River Channel or Moss Landing Harbor;

b) within 100 yards of any known archaeological site (unless the area has been previously surveyed and recorded).

The archaeological survey should describe the sensitivity of the site and appropriate levels of development, and development mitigation consistent with the site's need for protection.

b. Archaeological Resources Analysis

According to the Initial Study, a review of historic and prehistoric cultural resource records was conducted through the California Historic Resources Information System at Sonoma State University on April 9, 2001. No archaeological sites were identified, however one previous cultural resource study was conducted in 1981 on the landward portion of the project site, and no cultural resources were identified. The review of the historic resource information system thus suggests that there is a low possibility that historic cultural resources exist on the site. However, since construction activities may unearth previously undisturbed materials, the project has been conditioned to halt work and prepare and implement an archaeological mitigation plan if archaeological resources are encountered.

Therefore, as conditioned to require suspension of work and development of a mitigation plan if archaeological materials are found, the proposed development is consistent with Section 30244 of the Coastal Act and approved LUP archaeological resource policies.

D. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding must be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant adverse effect that the activity may have on the environment.

The environmental review of the project conducted by Commission staff involved the evaluation of potential impacts to relevant coastal resource issues, including environmentally sensitive marine and dune habitat, water quality and public access. This analysis is reflected in the findings that are incorporated into this CEQA finding. Commission staff received public comments voicing concerns about the loss of fishing opportunities due to replacement of Sandholdt Pier as a research pier.

The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. This staff report has discussed the relevant coastal resource issues with the proposal, and has recommended appropriate mitigations to address adverse impacts to said resources. Accordingly, the project is being approved

subject to conditions that implement the mitigating actions required of the Applicant by the Commission (see Special Conditions). As such, the Commission finds that only as modified and conditioned by this permit will the proposed project not have any significant adverse effects on the environment within the meaning of CEQA.